

That which is claimed is:

1. An organic light-emitting diode comprising:
a substrate having a first opposing surface and a second opposing surface;
a first electrode layer overlying the first opposing surface;
a light-emitting element overlying the first electrode layer, the light-emitting element comprising
a hole-transport layer and
an emissive/electron-transport layer, wherein the hole-transport layer and the emissive/electron-transport layer lie directly on one another, and the hole-transport layer comprises a cured polysiloxane prepared by applying an organosilicon composition to form a film and exposing the film to moisture, wherein the organosilicon composition comprises (A) at least one silane having the formula R^1SiX_3 and (B) an organic solvent, wherein each R^1 is independently selected from $-Y-Cz$, $-(CH_2)_m-C_nF_{2n+1}$, and $-(CH_2)_m-C_6F_5$, wherein Cz is N-carbazolyl, Y is a divalent organic group, m is an integer from 2 to 10, n is an integer from 1 to 3, and X is a hydrolysable group; and
a second electrode layer overlying the light-emitting element.
2. The organic light-emitting diode according to claim 1, wherein X in component (A) is $-Cl$ or $-Br$.
3. The organic light-emitting diode according to claim 1, wherein R^1 in component (A) is $-Y-Cz$, wherein Cz is N-carbazolyl and Y is a divalent organic group.
4. The organic light-emitting diode according to claim 3, wherein Y is C_1 to C_{10} alkylene.
5. The organic light-emitting diode according to claim 1, wherein R^1 in component (A) is $-(CH_2)_m-C_nF_{2n+1}$ or $-(CH_2)_m-C_6F_5$, wherein m is an integer from 2 to 10 and n is an integer from 1 to 3.

6. The organic light-emitting diode according to claim 1, wherein the concentration of component (A) is from 0.5 to 10% (w/w), based on the total weight of the organosilicon composition.

7. The organic light-emitting diode according to claims 1, 3, or 5, wherein the organosilicon composition further comprises at least one cross-linking agent having the formula $R^2_pSiX_{4-p}$, wherein R^2 is C_1 to C_8 hydrocarbyl or halogenated hydrocarbyl, X is a hydrolysable group, and p is 0 or 1.

8. The organic light-emitting diode according to claim 1, wherein the organosilicon composition further comprises at least one hydrolysis catalyst.

9. The organic light-emitting diode according to claim 1, wherein the emissive/electron transport layer comprises a fluorescent dye.

10. The organic light-emitting diode according to claim 1, further comprising at least one of a hole-injection layer and an electron injection layer.